

OXIDATION SENSOR FOR AN ELECTRICAL CIRCUIT AND A
METHOD OF MANUFACTURE THEREFOR

ABSTRACT OF THE DISCLOSURE

The present invention provides an oxidation sensor for an
5 electrical circuit or MEMS device that includes a conductor located
on an insulating substrate and a sensor trace located on the
insulating substrate adjacent the conductor. The sensor trace is
located on the insulating substrate adjacent the conductor and is
configured to oxidize at a rate greater than an electrical
10 component associated with the sensor trace on the electrical
circuit or MEMS device when the sensor trace and the electrical
component are exposed to a same oxidizing environment. By
oxidizing and thus becoming an open circuit more rapidly than any
structure on a electrical circuit or MEMS device at a given
15 relative humidity (i.e. in the same package), the oxidation sensor
is designed to provide early warning of oxidation. Thus, the
present invention serves as a sensor that will give advance warning
of a leaky package and associated oxidation.